To increase production, the feasibility of open cast mining by heavy earthmov-ing machinery is being explored by DVC.

(c) In the latter part of the Sixties, a Joint Management Council was formed comprising of management and representatives of two recognised unions. The Council functioned for 5 to 6 years but due to rivalries within one of the participating) Unions, it could not function thereafter.

Farakka Supwe Thermal Power Station

2989. SHRI ASHWANI KUMAR;
SHRI KAILASH PATI MISHRA;

Win the Minister of ENERGY be pleased to state;

(a) whether it is a fact that the 1st stage of Farakka Super Thermal Power Station has been completed and is producing energy; if so, what is the energy produced in megawatts and what are the shares of West Befngal and Bihar in it;

(b) whether there are any direct trans-mission lines between Farakk'a and BSEB so that the Bihar share could be passed on smoothly; and

(c) if no, what are the plans for 440 kv trunk transmission line between the two points, and how long will it take to instal it?

THE MINISTER OF STATE IN THE DEPARTMENT OF POWER IN THE MINISTRY OF ENERGY (SHRIMATl SUSHILA ROHATGI): (a) to (c) The three units of 200 MW each at the Farakka Super Thermal Power Project Stage-I have been synchronised; the second and third units are - presently under stabilisation. The States of West Bengal and Bihar have been allocated 205 MW and 135 MW respectively from this station Which, till October, 1987 had ge-nerated 487 .V million units.

The as riated transmission system for Stage-I of the project envisaged construc-ion of the Farakfea-Durgapur 'and Farak-a-Jeerhat lines. The Bihar.Stat- Elec-icity Board (BSEB) is to draw' its share if powers from the project displace-ment through the West Bengal State Elec-tricity Board (WBSEB) and the Damodar Valley Corporation (DVC) grid. The following direct transmission links are planned to be completed, progressively, by 1990-91;

(i) Farakka-Kahalgaon-Biharsharif 400 KV double circuit line, being constructed under Farakka Stage-II project.

(ii) Ka'nalgaon-Mailhon and Mai-thon-Jamshedpur 400 KV double circuit lines, being constructed under Kahalgaon Super Thermal Power Project, Stage-I.

These 400 KV lines will feed powe: to the BSEB grid at Biharsharif, Kahalgaon, 'Maithon and Jamshedpur.

Statewise demand and supply of Power

2990. SHRI SHANKER SINH VAGHELA:

SHRl PRAMOD MAHAJAN;

Will the Minister of ENERGY be pieased to state;

(a) the Statewise demand for and supply of power during the last three years, yearwise; and

(b) what arrangements were made, Statewise, for the removal of the deficit and what results have been achieved in this regard?

THE MINISTER OF STATE IN THE DEPARTMENT OF POWER IN THE MINISTRY OF ENERGY (SHRIMATI SUSHILA ROHATGI): (a) and (b) The Statewise information about requirement and availability of power during the last three years is given in the enclosed statement. *(Se?* below). In order to increase the availability of power efforts to the extent possible were made to supply power to the deficit States from the surplus states in the same region as well as from neighbouring systems. During the last three years, substantial power was supplied by BBMB to J&K by Himachal Pradesh t_0 Punjab and U.P. in the Nortern region, and Maharashtra to Gujarat

in the Western region. Inter-regional assistance was provided from Maharashtra to Karnataka from Madhya Pradesh to Rajasthan and Orissa, from Andhra Pradesh to Orissa, from U.P.lSingrauli STPS to Bihar, etc.

To improve the availability of power the various measures taken include expediting commissioning 0f new capacity, optimum utilisation of easting capacity, implementation of Centrally sponsored Renovation and Modernisation programme for thermal stations, reduction in transmission and distribution losses, assitance from neighbouring Stateslisystems to the extent possible, implementation of demand management and energy conservation measures.

Statement

Year-rise actual power supply position 1984-85 *to* 1986-87

(All Figures in MU Net)

State/System	84-85	85-86	86-87
NORTHERN REGION	306	354	432
CHANDIGARH	303	340	401
Requirement Availability	—3	-14	—31
Surp(+)/Defi(-) (%)	(1.0)	(3 9)	(7 2)
DELHI			
Requirement	4175	4880	5676
Availability . Surp	4448	4869	5674 -
(+)/Defi(—) (%)	+273	11	—2
	(6.5)	(0.2)	(0 0)
HARYANA			
Requirement	5571	5507	5945
Availability	3963 —	4223	5147
Deficit (—)	1608	—1284	—798
(%)	(28.9)	(23.3)	(13 4)
HIMACHAL			
Requirement	614	786	925
Availability	650	783	922
Surp(+)/Defi(-)	4-36	—3	—3
(%)	(5 8)	(0 4)	(0 3)
JAMMU & KASHMIR			
Requirement	1549	1719	2055
Availability	1270	1457	1820
Surp(+)/Defi(—)	—279	—262	-235
	(18.0)	(15.2)	(11.4)
PUNJAB			
Requirement	9585	10525	11679
Availability	7741	9581	11197
Deficit (—)	(—) 1844	_944	—482
	(19.2)	(8.9)	(4.1)

(All figures in MU Net)

State/System	84-85	85-86	86-87
RAJASTHAN			
Requirement	6570	7100	8090
Availability .	5903	6573	7448
Deficit (—)	—667	—527	—642
(%)	(10.2)	(7.4)	(7 9)
UTTAR PRADESH			
Requirement	16352	17633	20204
Availability .	14193	15477	17198
Deficit (—) (%)	—2159 (13.2)	-2156 02.2)	—3006 (14 9)
NORTHERN REGION			
Requirement	44722	48504	55006
Availability	38471	43303	49807
Deficit (—)	—6251	—5201	—5199
(%)	(140)	(10 7)	(9.5)
WESTERN REGION			
GUJARAT			
Requirement	12565	14128	15968
Availability .	12784	13866	15431
Surp(+)/Defi(—)	+219	—262	—537
(%) .	(17)	(1.8)	(3.4)
MADHYA PRADESH			
Requirement	9810	11226	12781
Availability .	10232	11211	12781
Surp(+)/Defi (-)	+422	—15	
(%)	(4.3)	(0.1)	
MAHARASHTRA incl Goa			
Requirement	24055	25957	
Availability .	23102	25518	28945
Deficit (—) (%)	—953 (4.0)	—439 (1.7)	27051 —1894
WESTERN REGION			
Requirement	46430	51311	
Availability .	46118	50595	57694
Deficit (—) .	—312	—716	55263
(%)	(0.7)	(14)	—2431 :(4 2)
SOUTHERN REGION			
ANDHRA PRADESH			
Requirement	11287	13534	15057
Availability .	12036	13534	15057
Surp(+)/Defi(—)	—749		
(%) .	(6.6)		

State/System	84-85	85-86	86-87
KARNATAKA			
Requirement	10277	12166	14163
Availability .	9532	9463	10350
Deficit(—) .	—745	—2703	—3813
(%)	(72)	(22.2)	(269)
KERALA			
Requirement	4775	5225	5567
Availability .	4662	5225	5146
Surp(+)/Defi(-) (%)	—113		—421
	(2-4)		(7.6)
TAMIL NADU			
Requirement	13390	14610	16391
Availability Surp	13580	13076	14983
(+)/Defi (—) (%) .	+190	— 1534	—1408
	(14)	(10.5)	(8 6)
SOUTHERN REGION			
Requirement.	39729	45535	51178
Availability • Surp	39810	41298	45536
(+) /Defi(—) (%)	+ 81	—4237	—5642
	(0.2)	(9.3)	(11.0)
EASTERN REGION			
BIHAR			
Requirement	4418	4315	4877
Availability	2678	3108	3564
Deficit (—) .	—1740	—1207	-1313
(%) •	(39-4)	(28.0)	(26.9)
D.V.C.			
Requirement	6576	6584	6928
Availability	5344	5956	7806
Deficit (—)	-1232	—628	+878
(%)	(18.7)	(9.5)	(12 67)
ORISSA			
Requirement	5194	5374	6328
Availability	4339	4342	4807
Deficit (—)	(16.5)	—1032	—1521
(%)		(192)	(24.0)
WEST BENGAL			
Requirement	6769	7370	8416
Availability	6621	6970	7083
Deficit (—)	—148	—400	—733
(%)	(2 2)	(5.4)	(8.7)

State/System	84-85	85-86	86-87
EASTERN REGION			
Requirement	22957	23643	26549
Availability .	18982	20376	21860
Deficit (—) .	—3975	-3267	—46S9
	(17.3)	(13.8)	**(17-7)**
NORTH E4STERN REGION			
Requiremert	1594	1753	1929
Availability . Surp(-	1632 +	1690 -	1810
f-)/Defi(—) **(%)**	38	63 (3	- 119
	(2.4)	6)	(6 2)
ALL INDIA			
Requirement	J 55432	170746	192356
Availability	145013	157262	174276
Deficit (-) (%)	-10419	—13484	—18080
	(6 7)	(7.9)	(9-4)

Manufacture of welding robot by BHEL

2991. SHRIMATi KRISHNA KAUL: Will the Minister of INDUSTRY be pieased to state;

(a) whether BHEL propose to make a welding robot in the near future; and

(c) if so, what are the details thereof?

THE MINISTER OF INDUSTRY (SHRl J. VENGAL RAO); (a) No, Sir.

(b) Does not arise.

Steps to improve power position in Tamil Nadu

2992. SHRl M. VINCENT; Will the Minister of ENERGY be pleased to state:

(a) whether it is a fact that there is an acute shortage of power due to short comings in the movement of coal from other *States to Tamil* Nadu; and

(b) whethe,- the Central Government would permit Tamil Nadu to utilise the major share of electricity generated by the allied power station of the third mine *cut* at Neyveli Lignite Corporation?

THE MINISTER OF STATE IN THE DEOARTMENT OF POWER IN THE MINISTRY OF ENERGY (SHRIMATI SUSHILA ROHATGI): (a) There are adequate stocks of coal at present, at the power stations of the Tamil Nadu Electricity Board (TNEB) whose thermal generation during April to November. 1987 was about 8.6 per cent more than the programme.

(b) The report of the Proposed third mine cut thermal station of the Neyveli Lignite Corporation is yet to be technoeconomically cleared by the Central Electricity Authority. Shares from Central Sector thermal projects are determined in accordance with the approved Central formula. As per the formula in force, Tamil Nadu can receive 10 per cent of the power by virtue of being the 'Home State' as also its proportionate share, determined on the basis of the Central plan allocations and energy consumption during the last five years.

National perspective of power generation

2993. SHRl CHIMANBHAI MEHTA: Will the Minister of ENERGY be pleased to state:

(a) what is tbe national perspective of demand and generation of electricity for the next five years particularly with regard to Guiarat: